

PARTIAL ENGLISH TRANSLATION OF JAPANESE LAID-OPEN
PATENT APPLICATION NO.11-299093 (PARAGRAPHS 0013 &
0014):

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[0013]

Embodiment 1 of the present invention is shown in Fig. 2. In the AC adapter, terminals T1, and T2 are connected to the commercial power supply.
10 An AC switch 11 is inserted between the terminal T1 and one end of the primary side of a transformer 12. The other end of the primary side of the transformer 12 is connected to the terminal T2.

[0014]

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One end of the secondary side of the transformer 12 is connected to an anode of a diode 13. A condenser 14 is inserted between a cathode of the diode 13 and the other end of the secondary side of the transformer 12. An output voltage is
20 generated by the diode 13 and the condenser 14. An anode of a diode 15 is connected to the cathode of the diode 13, which cathode is connected to a current detector 16. The current detector 16 is connected to a terminal T3 through a constant
25 voltage unit 17. The cathode of the diode 13 is connected to a detecting unit 18. The detecting unit 18 outputs a signal for turning on/off a switch 19. A voltage detector 20 is inserted between the terminal T3 and a terminal T4. Signals from the
30 current detector 16, the detecting unit 18, and the voltage detector 20 are provided to a switch on unit 21. The switch on unit 21 turns on/off the AC switch 11.

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PARTIAL ENGLISH TRANSLATION OF JAPANESE LAID-OPEN
PATENT APPLICATION NO.6-292363 (PARAGRAPHS 0019-
0021):

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[0019]

In the following, operations of Fig. 2 are described. The switch 9 is interlocked with the connector 8. When the connector 8 is not connected, connection is made to the battery 11. When the
10 connector 8 is connected, connection is made to the AC adapter 1. Fig. 2 shows that the connection is made to the AC adapter. When the power switch 13 is turned on, power is provided the power control unit
15 15 from the battery 12 through the contact 132, the diode 10, the power supply wire 52, and the terminals V1, and V0. The power control unit 15 turns on the relay 7, and the AC adapter 1 is turned on.

20 [0020]

By making the output voltage of the AC adapter 1 greater than the battery 12, power is provided to the power control unit 15 by the AC adapter 1 from the moment when the AC adapter 1 is
25 turned on; no current flows through the diode 10; and power supply from the battery 12 is stopped. When the power switch 13 is turned off, the current from the AC adapter to the battery operated apparatus 2 is stopped.

30 [0021]

When the power control unit 15 determines that the current from the AC adapter 1 to the battery operated apparatus 2 is stopped by a signal provided to the terminal I from the current detector
35 14, the relay 7 is turned off, and the AC adapter 1 is turned off. If the battery 12 is not installed, or if the battery 12 is worn and cannot provide a

sufficient current to turn on the relay 7, the AC adapter can be turned on by turning on the switch 3 regardless of the state of the power switch 13 as a standard AC adapter.